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American Cemeteries.

THERE is nothing in this country to which foreign writers give more praise than to our cemeteries. The student of social customs sees in them one of the chief proofs we give of genuine sentiment on the one hand and wise sanitary foresight on the other; and the student of art and nature sees in them our most characteristic and best achievements in the art of landscape gardening. Their size, their park-like arrangement, their remoteness from the local centres of population, and the care and neatness with which they are kept, are held up to foreign communities as points in which they would do well to imitate us. Certainly, as contrasted with the formal, walled-in, crowded, dreary, sun-baked or weed-grown cemeteries seen in most foreign lands, ours deserve much praise. But they are not what they ought to be. Excellent in intention, they are too often bad in execution. No expenditure of money, pains or skill is wanting, but in directing this expenditure we too often make grievous errors.

The cause of these errors, as one of our contributors has recently pointed out, is that we do not abide by the general idea with which the place was set aside for this special service. The characteristic feature of American cemeteries is that they are rural, no matter how large may be the communities for which they serve. But this characteristic we do our best to conceal or destroy. Nature is asked to take our dead in charge, and then we do a thousand things to ruin the repose, the sanctity and beauty which she is ready to provide. Too many and too prominent roads and walks are made, giving the cemetery the aspect of a place for pleasure promenades rather than for the retirement of those whose dead it holds. We take pains to make ample allowance of space to each purchaser of ground, partly that for his sake the graves shall not be too closely crowded and partly that they shall not destroy the unity and repose of the landscape. And then we often nullify our efforts by enclosing the lots with heavy railings and by building huge and showy monuments. We think we want a natural landscape, and then we plant the cemetery—not the private lots alone, but the parts which have been preserved intact for the sake of landscape beauty—with tropical plants, formal beds of gaudy flowers, and ribbon-patterns, borders, and endless puerile devices, wrought with bright-foliaged plants, which only support our climate a few weeks or months and then disappear, leaving dreary nakedness behind. In short, we lose sight of the main purpose for which the cemetery was designed, fail to keep any general idea or scheme in mind, and instead of a rural burial-ground produce something which is a meaningless, unnatural and essentially vulgar compound of a cemetery, a park, a horticultural exhibition and a collection of works of architecture and sculpture. And this we do by means of a vast waste of pains and money. No one who has not inquired into such matters can imagine what it costs to plant out year by year the exotics which are supposed to adorn our cemeteries, and to winter them from one year to another. Few realize the degree to which cemetery companies now compete with one another in this direction, bidding for public patronage by means of costly horticultural establishments and verbose advertisements of their horticultural resources and achievements. All this is wrong—wrong from the point of view of good sense, from the point of view of true sentiment, and from the point of view of art. The true ideal for the making of an American cemetery, whether large or small, is this: That spot should be selected of which the natural charms are greatest in direction of peacefulness and the harmony which means variety in unity. Its features should be as carefully preserved as possible in laying out the walks and drives, which should not be more numerous than actually required for purposes of burial and of visiting the graves. Such planting as is needful should be done in a way to complete the existing beauty, and accentuate, not disturb, the natural character of the spot. Costly exotics should not be introduced, no showy flower-beds allowed, no formal arrangements of planting of any kind permitted. They are out of keeping alike with the kind of beauty that is desired and with the spirit in which a cemetery is properly visited. Owners of lots should not be allowed to surround them with railings. They are palpably useless; they are glaringly injurious to unity and repose of effect; they serve merely to display proprietorship, and nothing can be in worse taste than such a display in such a place. Owners should be encouraged, too, to make their monuments not only as artistic, but as simple and unobtrusive as possible. Only a great man, one to whose grave future generations are likely to make pilgrimages, is entitled to have his resting place conspicuously marked; and even he does not need that it should be thus marked. Something which will indicate where a body lies and whose body it is, while disturbing as little as possible the unity and peacefulness of the scene—this is what a gravestone should be. It is needless to say that color as well as form should be considered with this fact in mind. Granite is the best possible, our favorite white marble the worst possible, material for cemetery monuments; and a flat slab is preferable to a vertical shaft or stone. If large boulders chance to be strewn over the ground nothing is more appropriate for monuments, a simple inscription being cut upon a space made smooth for the purpose, while the rest of the moss-grown or vine-covered surface remains in its natural condition. Owners should be restrained in their desire to plant showy flowers about the graves—should be taught that it is not justifiable for them to indulge their personal wishes in this way if they conflict with the greatest good of the greatest number as provided for in the peaceful unity of aspect that the cemetery as a whole should have. And finally, while the cemetery should be carefully kept and tended, there must be no evident straining after excessive finish as the most desirable of all qualities in all portions of the grounds.

Plans for Small Places.

MORE than once the request has come to us to publish a plan for a small suburban building lot, and to this the natural reply has been: "What lot?" Such plans cannot be furnished like ready-made clothing, in assorted sizes and warranted to fit any piece of land. Even from a cultural point of view no list of plants for a given place can be recommended unless its soil, aspect, drainage and other physical conditions are known and considered. And of course the territory lying about and beyond the lot, together with the relation of these surroundings to the lot itself, suggests problems of prime importance. What disagreeable or incongruous objects are to be planted out of sight? What outlook is to be preserved and made more pleasing by a proper treatment of the foreground? What are the tastes and necessities of the family which is to occupy and use the house and grounds? These and a hundred other questions must be met with specific answers in every given instance.

It does not follow from this that all general plans, of which so many have been published, are useless. The best of them have been made with a view to solve some special difficulties. They contain helpful suggestions and illustrate principles which are of wide application. But after all, no plan, however perfectly it may be adapted to one location, can be repeated with the same success in another. The attempt to reproduce effects in landscape work that have been agreeable elsewhere is invarably disappointing. To follow a fashion in gardening is rather more displeasing than to copy second-hand ideas in any other art. And even if it were not desirable in every case to produce something original, characteristic and appropriate, all efforts at imitation must prove but parodies, because growing plants develop into infinite variety. No two trees or shrubs—still less two groups of trees or shrubs—can be exact duplicates. The same selection and arrangement of plants at opposite ends of a village street will make pictures totally unlike in spite of the most painstaking effort to nurse them into a uniform effect.

When, therefore, we requested Mr. Olmsted to prepare a plan for an unpretentious homestead, we expected him to choose a lot with a character of its own and explain how he would adjust it to the wants and tastes of a particular household. The value of this study is not alone that it shows how difficulty can be converted into opportunity, and a strong-featured piece of ground on an abrupt hillside with cramped and irregular boundaries can be turned into a desirable building lot. In a broader way it is useful as illustrating the class of problems that present themselves whenever thorough work of this kind is contemplated, and as illustrating, too, how these problems are solved by a trained and conscientious artist.

Cut Flowers and Growing Plants.

IN Mr. Peter Henderson's article on "Floriculture in America," published in the first number of this journal, he spoke of the great love of Americans for cut flowers, and contrasted it with the love of the residents of foreign cities for growing plants. The difference which he notes, and which he illustrates by instructive figures, must strike every keen observer of national habits and tastes. There is nothing in London or Paris to rival the display of cut flowers in our florists' shops in winter. But, on the other hand, we have nothing which even approaches in magnitude or beauty the spectacle afforded at every season of the year by the plant markets of Paris. The surroundings of the Church of the Madeleine, on certain days of the week in spring and summer, offer one of the traditional sights which every tourist feels bound to see when he first visits Paris; and even stay-at-homes are familiar with the brilliancy of the scene, for there is none which has more often attracted the brush of the painter. French artists of the moment are especially fond of painting the streets of Paris, and if their gift lies in the direction of brilliant color, where could they turn for a better subject than to these crowded pavements, where gaily dressed ladies and children and white-capped nurses thread the rows of gorgeous blossoming plants, to bear away, now a huge yellow Chrysanthemum, or a tall red Rose-tree, and now a tiny pot, bought for a couple of cents, of Forget-me-nots or Pansies? And in every one of our home exhibitions of art, especially in those devoted to water-color painting, the individual plants of the French flower-market are brought beneath our eyes, each enveloped in one of those great cones of stiff white paper without which no self-respecting Parisian plant would be seen in public. But where shall one go in New York to find such scenes?

In Germany, although such gorgeous out-door displays of plants as we find in Paris are less common, there are always plenty of market-booths in the public squares where blooming plants may be bought in great variety; and in winter very beautiful specimens may be had from every florist. In the latter weeks of winter Azaleas are the favorites, and during all the preceding weeks Crocuses and Hyacinths, Lilies-of-the-Valley and Cyclamens, as well as Roses, are grown and sold in vast quantities. The custom of sending flowers as gifts to friends is very popular in Germany, although it has, of course, never been carried to such extravagant lengths as with us. But even more often than cut flowers, flowering plants are used for the purpose—either a single fine specimen, solitary in its pot, or a group of flowers of the same kind, or a pretty arrangement of contrasting kinds grown in round, wide, shallow, inexpensive baskets of bark. Such a basket filled, for example, with Hyacinths of different colors, or with a variety of Tulips, or with a pure white mass of Lilies-of-the-Valley, is more beautiful than any bunch of these flowers; and it will last much longer even in the atmosphere of a hot, dry living-room. Not the most splendid bunch of Roses is more lovely than a fine Azalea in full flower; and if the plant is purchased in bud and left to flower in its new owner's possession, she will be sure of several weeks' instead of several hours' enjoyment.

We have no wish to find fault with the love of cut flowers, which is so distinctively an American characteristic. Yet we think our almost exclusive preference for them instead of for flowering plants is a misfortune, especially to persons of modest means, who, by a different expenditure of their money, might buy more lasting pleasures.

The wood of the Liquidambar has now become an article of considerable commercial importance in this country. As long as black walnut and cherry were abundant and cheap it was considered worthless by the manufacturers of furniture, but now more than three million feet are annually used by them in this city alone. Blocks of this wood have been employed for several years in paving the streets of some western cities, and in the South liquidambar shingles have long been common. This wood is nearly as heavy as black walnut, but not as strong; it is tough and close-grained and can be made to take a beautiful satiny polish. Its color is bright brown tinged with red. This wood, however, shrinks and splits badly in seasoning and this is its great defect. But it has now been found that if the wood, as soon as it comes from the saw, can be steamed for fifteen or twenty hours, according to the thickness of the boards, and then carefully kiln-dried, it will not warp or twist. This is a discovery of great importance and is likely to have a considerable influence upon the lumber supply of the country. The Liquidambar is a large, and in some parts of the country a very common tree. It frequently reaches a height of a hundred feet with a trunk diameter of over six feet. It flourishes in the low and often inundated river-swamps of the South and West, where, mixed with the Cottonwood and the Big Tupelo, it covers vast areas which can never be brought under cultivation from lack of sufficient drainage and will always remain

in forest. These river-swamps, too, will always be protected from fire by the moisture of the soil. Our store of liquidambar, therefore, will not be very soon exterminated probably, and, if cut judiciously, will supply the demand of furniture manufacturers for a long time to come.

Few people, probably, realize the extent of the plantations of American Grape-vines which have been made in Europe since the discovery that they have sufficient vigor to survive the attacks of the Phylloxera, and therefore make the best stocks upon which to work the different wine-grapes in regions affected by this pest. From a recent issue of the *Revue Horticole* it appears that in the year 1881 about 22,000 acres were planted in France with American Grapes, while in 1887 not less than 416,000 acres were planted, the total acreage for these seven years amounting to 1,200,000 acres. These figures give an idea of the immense damage the Phylloxera has inflicted upon French agriculture.

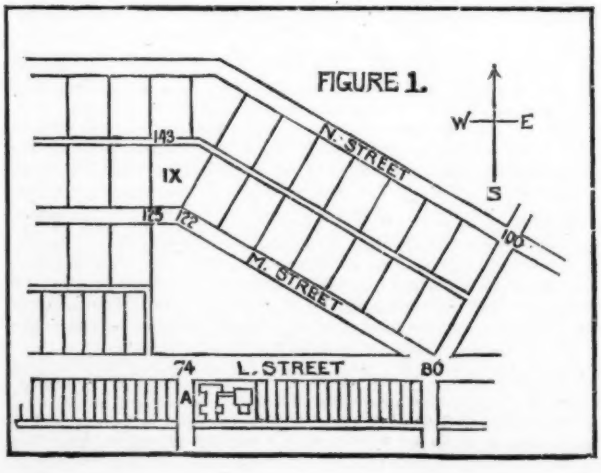
Plan for a Small Homestead.

Conditions and Requirements.—The site is upon the south face of a bluff, the surface of which is so steep that the rectangular street system of the city, to the east and south, had not been extended over it. The diagonal streets, *M* and *N*, have been lately introduced and building lots laid off on them, as shown in Figure 1. The triangular space between *L* and *M* Streets is a public property containing the graves of some of the first settlers of the region. Its northern and western parts are rocky and partly covered by a growth of native Thorns and Junipers, east of which there are Willows and other planted trees. At *A* there is a meeting-house and parsonage. Arabic figures show elevations above city datum.

The lot to be improved is that marked *IX*. The usual conveniences of a suburban cottage home are required, and it is desired that it should be made more than usually easy and convenient for members of the household, one of whom is a chronic invalid, to sit much and be cheerfully occupied in out-of-door air and sunlight. A small fruit and vegetable garden is wanted and a stable for a single horse and a cow, with carriage room and lodgings for a man. Water for the house, garden and stable is to be supplied by pipes. There is a sewer in *M* Street.

The problem is to meet the requirements thus stated so snugly that the labor of one man will be sufficient, under ordinary circumstances, to keep the place in good order and provide such gratification of taste as with good gardening management the circumstances will allow.

The north-west corner of the lot is 21 feet higher than the south-east corner, the slope being steeper in the upper and lower parts than in the middle. There is a small outcrop of a ledge of limestone about 30 feet from the south end, and the ground near it is rugged and somewhat gullied. *M* Street, which has a rapid descent to the eastward, opposite the lot, was brought to its grade by an excavation on the north side and by banking out on its south side the bank being supported by a retaining wall. The excavation has left a raw bank two to five feet high on the street face of the lot.



Looking from the middle part of the lot over the roof of the parsonage a glimpse is had of a river, beyond which, in low bottom land, there is a body of timber, chiefly Cottonwood, over which, miles away, low, pastured hills appear in pleasing undulations.

The narrower frontage of lot *IX*, its irregular outlines, its steepness, its crumpled surface, the raw, caving bank of its street face and its apparent rockiness and barrenness, had made it slower of sale than any other on the hill streets, and it was, accordingly, bought at so low a price by its present owner that he is not unwilling to pay liberally for improvements that will give him such accommodations upon it as he calls for. From the adjoining lots and those higher up the hill to the north the view which has been referred to, over the roof of the parsonage, is liable to be curtained off by trees to grow, or houses to be built, on the south side of them. Either this liability has been overlooked or the view has been considered of little value by those who have bought them. "Most people," says the owner of lot *IX*, "find their love of Nature most gratified when they have a trim lawn and a display of flowers and delicacies of vegetation upon it in front of their houses. I find Nature touches me most when I see it in a large way; in a way that gives me a sense of its infinitude. I like to see a natural horizon against the sky, and I think that the advantage we shall have here in that respect will fully compensate us for the want of a fine lawn-like front, provided the place can be made reasonably convenient." Fortunately his wife is essentially like-minded. "I am a Western woman," she says, "and would not like to live in a place that I could not see out of without looking into the windows of my neighbors."

Controlling Landscape Considerations.—The only valuable landscape resource of the property lies in the distant view eastward from it. Looking at this from the house place, it can evidently be improved by placing in its foreground a body of vigorous, dark foliage, in contrast with which the light gray and yellowish greens of the woods of the river bottom will appear of a more delicate and tender quality, and the grassy hills beyond more mysteriously indistinct, far away, unsubstantial and dreamy. Such a foreground can be formed within the limits of lot *IX*, and, strictly speaking, the forming of it will be the only landscape improvement that can be made on the place. It is, however, to be considered, that when the middle of the lot is occupied by a house but small and detached spaces will remain to be furnished with verdure or foliage, and that anything to be put upon these spaces will come under direct and close scrutiny. Hence nothing should be planted in them that during a severe drought or an intense winter or in any other probable contingency is likely to become more than momentarily shabby. Further, it is to be considered, that when the eye is withdrawn from a scene the charm of which lies in its extent and the softness and indefiniteness, through distance, of its detail, the natural beauty in which the most pleasure is likely to be taken will be of a somewhat complementary or antithetical character. But to secure such beauty it is not necessary to provide a series of objects the interest of which will lie in features and details to be seen separately, and which would be most enjoyed if each was placed on a separate pedestal, with others near it of contrasting qualities of detail, each on its own separate pedestal. It may be accomplished by so bringing together materials of varied graceful forms and pleasing tints that they will intimately mingle, and this with such intricate play of light and shade, that, though the whole body of them is under close observation, the eye is not drawn to dwell upon, nor the mind to be occupied, with details. In a small place much cut up, as this must be, a comparative subordination, even to obscurity, of details, occurring as thus proposed, and not as an effect of distance, is much more conducive to a quiescent and cheerfully musing state of mind than the presentation of objects of specific admiration.

Anatomical Plan.—The important common rooms of the family and the best chambers are to be on the southern side of the house, in order that the view over the river, the south-western breeze and the western twilight, may be enjoyed from their windows. (See figure 2.) It follows that the kitchen and the main entrance door to the house are to be on its north and east sides. Were it not for excessive steepness, the best approach to the house would be on a nearly straight course between its east side and the nearest point on *M* Street—*i. e.*, the south-east corner of the lot; this partly because it would be least costly and most convenient, and partly because it would make the smallest disturbance of the space immediately before the more important windows of the house. But to get an approach of the least practicable steepness the place will be entered

at the highest point on *M* Street—*i. e.*, the south-west corner; then a quick turn will be taken to the right, in order to avoid the ledge, then, after passing the ledge, another to the left. On this course a grade of one in twelve and a half can be had. (The grade on the shortest course would be one in seven.) Opposite the entrance to the house there is to be a nearly level space where carriages can rest.

The caving bank made by the cut for grade of *M* Street requires a retaining wall four feet high along the front of the lot. This will allow a low ridge, nearly level along the top, to be formed between the wheelway and the street, making the wheelway safer and a less relatively important circumstance to the eye.

Even in the part of the lot chosen, as being the least steep, for the house, a suitable plateau for it to stand upon can only be obtained by an embankment on the south and an excavation on the north. The embankment is to be kept from sliding down hill by a wall ten feet in front of the wall of the house. This retaining wall is to be built of stained and crannied, refuse blocks of limestone which have been formerly thrown out from the surface in opening quarries on the back of the bluff. They are to be laid without mortar and with a spreading base and irregular batter. Where the ledge can be exposed they will rest upon it, and the undressed rock will form a part of the face of the wall. A railing two and a half feet high is to be carried on the top of the retaining wall, and the space (*b*) between this and the wall of the house will be an open terrace upon which will open half-glazed French windows on the south of the library, parlor and dining-room. At *c* (figure 2) there is to be a little room for plants in winter, the sashes of which are to be removed in summer, when the space is to be shaded by a sliding awning. At *d* a roof covers a space large enough for a tea table or work table, with a circle of chairs about it, out of the house proper, forming a garden room. This roof is to be sustained by slender columns and lattice-work, and lattice-work is to be carried over it and the whole to be overgrown with vines (Honeysuckle on one side, Wistaria on the other, the two mingling above). The space *ee* is reserved for a tiny pleasure garden, to be entered from the house and to be considered much as if, in summer, it were a part of it carpeted with turf and embellished with foliage and flowers. At *f* there is to be a retired seat for reading and intimate conversation, and east of this an entrance to the service gardens, to be described later. The laundry yard, *h*, and the kitchen yard, *i*, are to be screened by high lattices covered by Virginia Creeper. The court yard, *j j*, is to be smoothly paved with asphalt blocks or fire brick, which it will be easy to thoroughly hose and swab every day. In one corner of it is a brick ash house, *k;* in another a gangway to the cellar and a chute for coal, *l;* in another a dog house, *m*. The stable and carriage house are entered from the court yard, but hay will be taken into the loft from a wagon standing in the passage to the back lane. At *n* is the stable yard.

Landscape Gardening.—The soil to be stripped from the sites of the house, terrace, stable, road and walks, will be sufficient, when added to that on the ground elsewhere, to give full two feet of soil wherever needed for turf or planting.

Trenches, nowhere less than two feet deep, are to be made on each side of the approach road south of the terrace and to be filled with highly enriched soil, the surface of which is to slope upward with a slight concavity as it recedes from the approach. The base of the wall is to merge irregularly into this slope. The space between the terrace and the street is so divided by the approach, and, in the main, is so steep and dry, that no part of it can be well kept in turf, nor can trees be planted in it, because they would soon grow to obstruct the southward view from the house and terrace. The steep dry ground and the rock and rough wall of this space are to be veiled with vines rooting in the trenches. The best vine for the purpose is the common old clear green Japan Honeysuckle (*Lonicera Halliana*). In this sheltered situation it will be verdant most, if not all, of the winter, and blooming, not too flauntingly, all of the summer. It can be trained not only over the rough sloping wall of the terrace, but also over the railing above it, and here be kept closely trimmed, so as to appear almost hedge-like. Also it may be trained up the columns of the shelter and along its roof; the odor from its bloom will be pleasing on the terrace, and will be perceptible, not oppressively, at the windows of the second story. Other vegetation is to be introduced sparingly to mingle with it, the wild Rose and Clematis of the neighborhood; the Akebia vine, double flowering Brambles, and, in crevices of the wall, *Rhus aromatica*, dwarf Brambles, *Cotoneaster microphylla*, Indian Fig, Aster, and Golden Rod, but none of these in conspicuous bodies, for the space is not too large to be occupied predominatingly by a mass of foliage of a nearly uniform character. Near the south-west corner of the pleasure garden, *Forsythia suspensa* is to fall over the wall, and, also, as a drapery in the extreme corner (because the odor to those near the bloom of it is not pleasant), Matrimony vine (*Lycium vulgare*). Upon the walls of the house east of the terrace, Japanese Ivy (*Ampelopsis Veitchii*) is to be grown, and before it a bush of the fiery Thorn (*Cratægus Pyracantha*). For the ground on the street side of the approach, *pp*, smooth-leaved shrub evergreens would be chosen were they likely to thrive. But both the limestone soil and the situation is unfavorable to them. Next, a dark compact mass of round-headed Conifers would best serve the purpose of a foreground to the distant view, but there are none that can be depended on to thrive long in the situation that could be kept within the required bounds except by giving them a stubbed and clumsy form by the use of the knife. The best available material for a strong, low mass, with such deep shadows on the side toward the terrace as it is desirable to secure, and which is most sure to thrive permanently in the rather dry and hot situation, will be found in the more horizontally branching of the Thorn trees (*Cratægus*), which grow naturally in several varieties on other parts of the hill. Their heads may be easily kept 'ow enough, especially in the case of the Cockspur (*C. Crus-galli*), to leave the view open from the terrace without taking lumpy forms. But as a thicket of these spreading thorn bushes, fifty feet long, so near the eye, might be a little stiff and monotonous, a few shrubs are to be blended with them, some of which will send straggling sprays above the mass and others give delicacy, grace and liveliness, both of color and texture, to its face. Common Privet, red-twigged Dogwood, common and purple Barberry, *Deutzia scabra*, Spice-bush and Snowberry may be used for the purpose. American Elms have already been planted on the lot adjoining on the east. The Wahoo Elm (*Ulmus alata*) and the Nettle tree (*Celtis occidentalis*) are to be planted in the space between the approach and the boundary. They will grow broodingly over the road, not too high, and mass homogeneously with the larger growing Elms beyond. Near the stable two Pecans (*Carya olivæformis*) are to be planted. The three trees last named all grow in the neighboring country and are particularly neat and free from insect pests. A loose hedge of common Privet having the effect of a natural thicket is to grow along the boundary. No other shrub grows as well here under trees.

As the pleasure garden is to be very small, to be closely associated with the best rooms, and to be not only looked at but used, it must be so prepared that no excessive labor will be needed (as in watering, mowing, sweeping and rolling), to keep it in superlatively neat, fresh and inviting condition. No large trees are to be grown upon or near it by which it would be overshadowed and its moisture and fertility drawn upon to the injury of the finer plantings. It must be easy of use by ladies when they are shod and dressed for the house and not for the street. Its surface is to be studiously modeled with undulations such as might be formed where a strong stream is turned aside abruptly into a deep and narrow passage with considerable descent. It will be hollowing near the house and the walk, and will curl and swell, like heavy canvas slightly lifted by the wind, in the outer parts. Wherever it is to be left in turf the undulations are to be so gentle that close mowing, rolling and sweeping will be easily practicable. The upper and outer parts are to be occupied by bushy foliage compassing about all the turf; high growing shrubs next the fences and walls; lower shrubs before them; trailers and low herbaceous plants before all. But there must be exceptions enough to this order to avoid formality, a few choice plants of each class standing out singly. The bushes are to be planted thickly, not simply to obtain a good early effect, but because they will grow better and with a more suitable character in tolerably close companionship. As the good sense of the lady who is to be mistress of this garden ranges more widely than is common beyond indoor matters of taste, it may be hoped that due thinnings will be made from year to year and that the usual mutilation of bushes under the name of pruning will be prevented.

The following little trees and bushes may be used for the higher range: The common, trustworthy sorts of Lilac, Bush-honeysuckle, Mock-orange, Forsythia, Weigelia, the Buffaloberry (*Shepardia*), common Barberry, the Cornelian Cherry and the red twigged Dogwood. In the second tier, Missouri Currant, Clethra, Calycanthus, Jersey Tea, Japanese Quince, Japanese Mahonia, Spiræas, and the Mezereon Daphne.

In the third tier, *Deutzia gracilis*, Oregon Grape, flowering Almond (white and red), *Spiræa Thunbergii* and *S. Japonica*, Waxberry, *Daphne Cneorum*, small-leaved Cotoneaster, and the Goatsbeard Spiræa. The Virginia Creeper is to be planted against the walls of the house, Chinese Wistarias near the

garden room. Oleanders, Rhododendrons, Figs, Azaleas and Bamboos, grown in tubs, are to be set upon the terrace in summer. They are to be kept in a cold pit during the winter.

The service garden (*gg*, Fig. 2) will have a slope of one to five inclining to the south. It is intended only for such supplies to the house as cannot always be obtained in the public market in the fresh condition desirable, and is divided as follows:

g 1. Roses and other plants to provide cut flowers and foliage for interior house decoration;

g 2. Small fruits;

g 3. Radishes, salad plants, Asparagus, Peas, etc.;

g 4. Mint, Parsley, Sage, and other flavoring and garnishing plants for the kitchen,

g 5. Cold-frame, wintering-pit, hot-beds, compost-bin, manure-tank, garden-shed and tool-closet.

BROOKLINE, MASS., 14th April, 1888. *Fred'k Law Olmsted.*

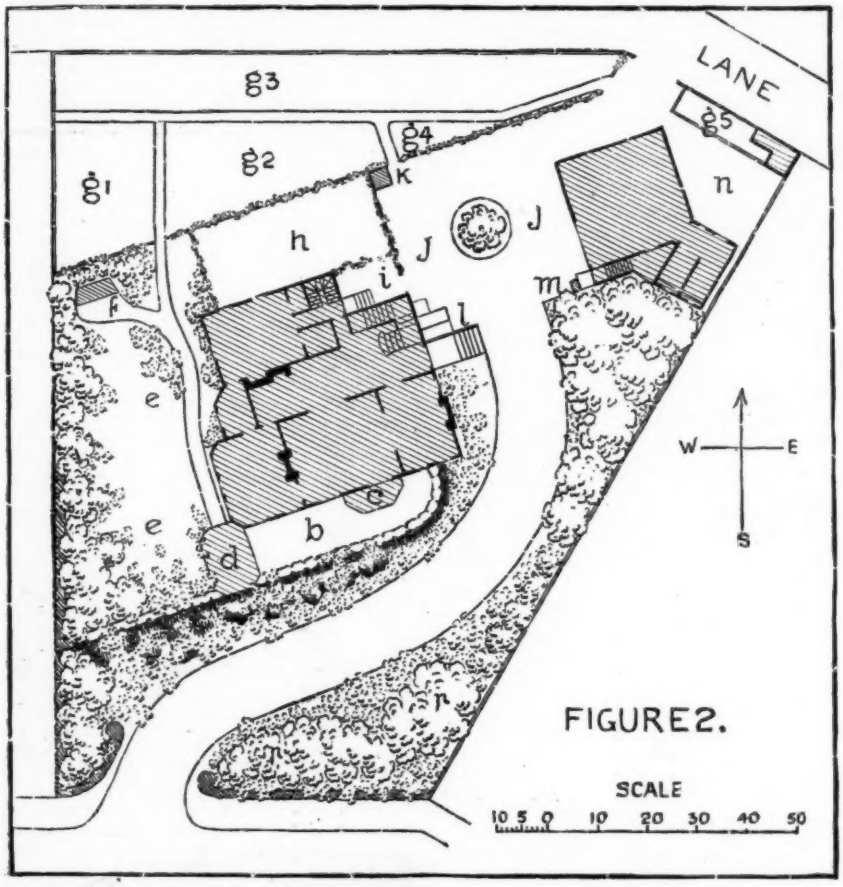


FIGURE 2.

Foreign Correspondence.

London Letter.

With the equinox our spring flower shows begin, the most important being that of the aristocratic Royal Botanic Society, Regents Park, on the 21st of March. This conservative body never dreams of innovation, never tolerates a change in the prize schedule, so that the masses of Hyacinths and Tulips, Azaleas and Cyclamens, repeat themselves at each spring exhibition. Nevertheless, hither throng crowds of the *élite* of London society. Forced Roses made an interesting feature, and none of the sorts shown seemed to win so many admirers as the new Lady Alice, which was even finer here than at South Kensington, and the judges awarded it a certificate of merit. The pretty little Mignonette Rose, with clusters of button-like rosettes of pale pink, was a much admired flower. It is extremely floriferous and forces well even earlier than the present date, and I imagine that it would be invaluable for market florists. It is one of the *Rosa polyantha* hybrids of which Ma Parqueritte and Anna Maria Montravel are other beautiful examples.

Among other noteworthy flowers were the new Cinerarias, shown by Mr. James, who for several years past has made the improvement of this flower the study of his life. He has changed starry flowers into perfectly circular flowers with overlapping florets, besides impressing into his "strain" new self-tints, and combinations of tints, in zones and stripes. Some critics hold that the improved Cineraria has lost the elegance and beauty of the old-fashioned Cineraria in the severely symmetrical flower. But the balance of opinion among florists is in their favor, and this strain of seeds always commands the highest prices, which is a fair test of popular favor. The very finest varieties are named, and, of course, are propagated from cuttings, though in some cases the sorts are perpetuated true from seed. There was a large gathering of these flowers on exhibition, and of the three sorts certificated the finest was a pure white with purple centre, named Maria. Another, named Irene, had the colors purplish violet, carmine and white arranged in zones, and a third, named Favorite, rich carmine and white. If one could place one of these plants beside the original *Cineraria cruenta* of the Canary Islands, from which this garden race has descended, he could better appreciate the enormous strides that have been made in the improvement of the flower. The pure *C. cruenta*, from seed gathered in the Canaries, is in bloom just now in Kew Gardens, and the contrast of the florist's strain with it is remarkable.

One would think that a special feature would be made of forced shrubs at these early spring shows, but with the exception of a fine mass of forced white Lilac from a market florist, the old *Deutzia gracilis*, and a few specimens of Laburnum, and other shrubs, there was nothing remarkable in this way. The forced Lilacs were the admiration of every one, the plants being so fine and thickly hung with large dense clusters of pure white bloom. They came from Mr. Dorst, of Richmond, one of the market florists whose success in forcing Lilac is now well known. He is, in fact, one of the few florists who have proved that Lilacs can be forced profitably. Ever since October last he has sent almost daily supplies to Covent Garden. His flowers always look fresher than the imported bloom from France, and consequently fetch a higher price. The best variety he uses is Charles X., which in the ordinary flower season is purple, but when forced in the dark is pure white. Enormous quantities of Lilac plants are grown by this florist, and all are subjected to preparatory treatment in pots a year or so before wanted for forcing, so as to get them well rooted and with strong, well ripened wood. The bushes are pruned severely, leaving only the strongest growths, and then are gradually introduced into heat in batches, from October onwards. The forced supply lasts till past Easter, when it is in much demand. *W. Goldring.*

London, March 22d, 1888.

New or Little Known Plants.

Hymenocallis humilis.*

THE so-called Pancratiums of the United States are represented in our illustration for this number. The true Pancratiums, however, are all natives of the Old World, and are characterized by having the tube of the flower considerably dilated upward, and therefore funnelform. The crown which unites the filaments is also usually lobed, and the cells of the fruit are several-seeded. The American species all belong to the genus *Hymenocallis*, which has the tube narrowly cylindrical and only two ovules in each cell of the ovary. They are found in marshes and on river banks in the southern Atlantic and Gulf States, mostly near the coast, though one species, which is supposed to be the same as the *H. rotata* of the coast, is found in Tennessee and Kentucky.

The figure here given shows one of two species which were discovered in Florida by Dr. Edward Palmer in 1874. *H. humilis* is a low and slender species, the smallest of the genus. The bulb appears to be attached to a rather thick rootstock, and sends up a few short narrow leaves and a short scape which bears a single flower. The linear segments are greenish, as are also the anthers, while the broadly funnelform truncate crown is white. The plant was found on the banks of the Indian River in flower early in March, but it has not been again collected. Dr. Palmer speaks of it as common in the grassy meadows near the river, a free bloomer, and very showy, and the most attractive plant found by him in that region. *S. W.*

Fig. 23.—Hymenocallis humilis.

Cultural Department.

Hybrid Aquilegias.

POSSIBLY no genus of plants more readily admits of a perfect hybridization between the different species than the Aquilegia. For this reason it is almost impossible to preserve the seedlings pure should the parent plant have grown near any other species. Even when separated, the pollen will be distributed through insect agency, and the new generation in almost every case will possess marked characters, differing from the species. Taking advantage of this peculiarity, hybridizers have produced some curious and beautiful strains, and the only difficulty in the way of its permanent usefulness is the trait alluded to, that of so easily departing from any fixed type.

About twenty-five years ago Dr. C. C. Parry, then engaged in studying the Flora of Colorado, happened upon *A. cærulea*, Torr., and with the herbarium specimen sent the writer was a small packet of seeds which were carefully grown, and the plants served as the female parents in a remarkable series of experiments in hybridization with several other species. One of the most instructive and valuable crosses was from the pollen of the white form of *A. vulgaris;* the result being flowers identical in form with *A. cærulea*, but pure snow-white in color.

In addition, as if to demonstrate the extent of its possibilities, two of the seedlings yielded perfectly double white blooms of the size and form of *A. cærulea*, even retaining the peculiar long curved spurs of that species.

In the collection of seedlings were flowers of almost every imaginable tint, but all showing, in a marked degree, the influence of the *cærulea* type. Subsequent efforts in the same direction with other species gave some interesting results, but none were more valuable than the above, unless we except a little bed of seedlings where the male parent was also our eastern species, *A. Canadensis*. The progeny in this case almost universally exhibited blooms showing various shades of red, but retaining all the other characters of the mother plant.

A few showy hybrids were produced by crossing *A. formosa* and *A. chrysantha* with *A. cærulea*, but the result did not prove so satisfactory as the foregoing, the colors being undecided, and the form, as a rule, greatly inferior to the parents. The development and fixing of new forms in flowers, as practiced on the numerous seed-farms in Europe, fully demonstrate, that by a systematic course of selection for a series of years, almost any peculiarity of color or form may be perpetuated from seeds and made to retain its idiosyncrasies thereafter. Whether this has been attempted with Aquilegia hybrids I do not know, although the numerous and very distinct colors of *A. vulgaris* will come true to name almost invariably. Division of the root was attempted and for several years the finest of these forms were retained, but finally all passed out of existence. *Josiah Hoopes.*

Rhus cotinoides.—Three years ago a small plant of this rare species was set in our nursery, where the ground is good and the situation well sheltered. It has grown vigorously, and made a single stemmed, well branched specimen, eight feet high. But it has been protected with barrels in winter. Last winter we gathered and tied the branches together and to a

* H. HUMILIS, Watson, *Proc. Am. Acad.*, xiv. 301. Bulb half an inch thick or more, upon a rootstock, covered by the broad sheathing bases of the leaves, which are four to six inches long by about two lines broad; scape scarcely equaling the leaves, one-flowered; segments of the spathe narrowly linear; flowers greenish, the tube fifteen lines long and shorter than the linear segments of the perianth; crown short, not narrowed at base, truncate between the erect filaments, which are a third shorter than the perianth and style; anthers greenish; ovary oblong, becoming an inch long in fruit.

long stake, and over these set three barrels, bottomless and headless, one on top of the other, and kept in place by being lashed between three long stout stakes. When uncovered, about the 1st of April, the branches were living to the tips, and nowhere does the tree show the least sign of injury from the winter. It has now been transplanted to a permanent position, as an isolated specimen, on the lawn, and consequently was cut in severely. It has not yet blossomed with us. But its handsome foliage and the bright red tinge of its leaf stalks and venation render it a desirable plant, even without flowers.

"It is in Alabama a small, wide branching tree, nine to ten metres in height, with a trunk sometimes 0.30 metre in diameter; on limestone benches from 700 to 900 feet elevation, in dense forests of Oak, Ash, Maple, etc.; local and very rare; not rediscovered in Arkansas or the Indian territory, in Alabama nearly exterminated."

Our specimen has been grown in an open sunny exposure and has not shown the least injury from full sunshine. *W. F.*

Heuchera sanguinea.—This new and handsome introduction from Mexico is likely to become the most popular of the genus as at present known. All Heucheras have elegant foliage. *H. pubescens* is generally grown for this reason alone. Last fall, with a view to increase our stock of *H. sanguinea*, which was limited to one small plant, all the crowns were cut off close to the rootstock. Placed in sand in a cool pit they rooted easily. We thus obtained a dozen plants which have bloomed persistently nearly all winter. We have also a number of seedlings, and, if we are fortunate enough to save them, in the course of time clumps in sufficient quantity can be obtained for forcing, like *Astible Japonica*, for winter blooming. The plants are in 4-inch pots, and have been grown in a night temperature of 40° to 45°. The flower stems are wiry, and self-supporting, blooming from 3 to 5 inches of their length, in a one-sided racemose cyme of red, tubular flowers of considerable substance, which have the excellent quality of being handsome in bud, and of lasting two or three weeks in a cool house. *T. D. Hatfield.*

Myosotis dissitiflora splendens is a variety of a very beautiful perennial Forget-me-not with flowers fully double the size of the common species (*M. palustris*). They are pink or shaded with pink when first open, but soon change into a beautiful clear blue. This plant is not quite hardy, but is well worth the protection of a cold-frame in winter. If seed is sown in June or July, the young plants will be strong enough by autumn to come through the winter safely, and can be transplanted into the open border, where they will bloom profusely during the month of May. Plants taken from the frame in February or March, and introduced into moderate heat, bloom freely in a few weeks, and a pan of this plant in flower is one of the most beautiful objects imaginable. This plant was sent to this country several years ago by Herr Leichtlin. *S.*

Sempervivums.—These form pretty and appropriate patches and mats about the stones in the rockery. They like an open and comparatively sunless situation, as on the northern slopes, but very much dislike to be shaded overhead by trees, shrubs or other plants. Most of the species are quite hardy. *Sempervivum globiferum, S. montanum, S. tomentosum, S. triste, S. calcareum, S. soboliferum, S. arenarium*, and some of the varieties of *S. tectorum*, are as good as any. The prettiest, perhaps, is the white cobweb *S. tomentosum; S. triste* is dark crimson, and *S. calcareum*—often, but erroneously, called *S. Californicum*—is a little tender. None of the Cape of Good Hope species are hardy. Now is a good time to transplant them; use the small or middle-sized heads only, as the large ones will bloom in a month or two, then die off and leave the place ragged.

"Dutch" Bulbs, such as Hyacinths, Tulips and Narcissus, that have been forced, should be stored close together in some lightly shaded place out-of-doors and kept watered so long as the leaves remain green. When the leaves die off stop watering altogether, shake out and gather the bulbs, keeping each kind by itself, and keep them in-doors till next August or September, when they may be planted thickly in rows in the garden. Next spring they may yield a few flowers, but of poor quality. The Tulips, after a few years, may recover their original strength, but the Hyacinths will only produce second-rate spikes at best. They are of no use whetever for forcing a second time.

Lilium candidum, if forced this year, should be planted out or thrown away, as to force the same bulb again next year would be labor lost. But *L. longiflorum* and its varieties may be grown along and forced year after year and do well every season. Keep them well watered and in vigorous growth as long as the leaves stay green, then dry them off and keep them perfectly dry, but still in the earth in the pots, till next fall, when re-pot them, keeping the large bulbs in pots by themselves, and the small ones in pots by themselves, and carefully preserve every little bulblet found along the joints of the underground stems. In the *Harrisii* form most all these little bulbs, even in three or four inch pots, will bloom next spring.

Spring Flowers.—Many of our earliest flowering plants grow well in shady places. They start into growth early and bloom before the trees begin to shade them. Their growth is rapid, and before midsummer they have completed their season's work and gone to rest. Among these are Anemones, Violets, Twin-leaf, Bloodroot, Winter Aconite, Trilliums, Rue Anemones, Spring Orobus, Pulmonaria, Lungwort, and many bulbous plants. At the same time we must bear in mind that Moss Pink, Rock Cress, Aubretia, evergreen Candytuft, and a good many others, if grown in shady places, will dwindle and die out after awhile. A safe rule to observe is, grow the short-lived deciduous kinds in shady places, and the evergreens mostly in sunny exposures.

Cutting Asparagus.—It is the practice of most gardeners to cut the large shoots of Asparagus only and leave the weaker ones to grow for the purpose of making strong roots and therefore strong shoots next year. A better custom is that adopted by Long Island gardeners, who cut everything clean every day. When the plants are all allowed to grow after the cutting season is over the strong plants assert themselves, overshadow the weaker ones and set the buds for next year's crop. This gives a larger percentage of strong buds every year. *S.*

Andromeda floribunda is now in good bloom. While it succeeds well in moist ground and on the north side of a wooded belt, it seems to dislike any open, sunny exposure or dry ground. *A. Japonica* is far more accommodating, but as it flowers so early, it is of little use in the North as a flowering shrub.

Pansies.—If these are to be kept in good bloom for a long time, they should be watered copiously and kept moderately thin by pulling out the poorest plants. After the middle of May a lath shading placed over, but a few feet above the beds, will help them considerably. The Bugnot, Cassier and Improved Trimardeau strains are as fine as any. *W. F.*

Effect of the Winter on Evergreens.

THE past winter was not unusually severe. During the summer we had abundant rain, and the ground was well soaked before frost set in; trees and shrubs made capital growth and the wood ripened up well. There was fine open working weather till the middle of December, and about the end of the month some rough cold weather. January began with wind and rain, but after New Year's, and till the middle of the month, there was fine, but somewhat cool weather; on the 16th there were 19° of frost, and from that time till the end of March we have had the most trying weather—cold, wet, stormy, changeable, icy—that I have any record of or remember. But while we had zero weather two or three nights, only once did the temperature fall as low as 3° below zero. At some one time during each of the four preceding winters the temperature has fallen to 6° below zero, but never for more than one night at a time, and usually only once, never more than twice the same season. But our trees suffer a good deal from ice storms. There is often a drizzling rain, and 6° to 10° of frost at the same time; this coats the trees completely with ice, and the branches break under the load. If a bright or warm day succeeds this icing, trees escape pretty well, but should it freeze harder, and a brisk north-west wind set in, a good deal of damage is done by the branches lashing against each other and breaking. Every succeeding year it becomes more and more apparent that in order to have the many beautiful trees and shrubs that will thrive in our climate, in perfection, we must afford them shelter. Wherever the trees have been well sheltered, there all that we would expect to be hardy have wintered well, but wherever there is insufficient shelter, there even hardy trees have suffered. It is not the intensity of the cold so much as the biting winds that injure trees and shrubs.

Pinus mitis has a yellow, unhappy look, but otherwise

the Pines are all right so far as the effects of winter are concerned.

Among Firs, *Abies grandis* has, as usual, got scorched a little; in fact, too much to allow this to be regarded as a reliable species here. One of the Oregon Douglas Firs in a more exposed place than the others has its leaves browned a very little, but not enough to hurt its wood in the least. Others of the Oregon form are not injured in the least. And the Colorado Mountain form, planted in bleak exposures enough, bear no mark of injury whatever. Nordman's, Cilician, Cephalonian, Veitch's, Spanish, and other Firs are uninjured.

No injury is observable among the Spruces. The more we know of the Colorado Blue Spruce the better it appears; its hardihood and capacity to resist severe winter winds seem to be greater than those of our White Spruce. Among Hemlock Spruces, the Japanese *Tsuga Sieboldiana*, so far as we have tried it—and there are fine large specimens here—is a hardier and more manageable tree than the common American species.

A Mesquit Forest in Arizona.

All the Retinosporas have wintered well, but the March blizzard spread them a good deal; *R. pisifera* and its varieties suffered most. The Golden Arbor Vitæ (*Thuya orientalis* var.) suffered in the same way. *Thuiopsis dolobrata*, in a moist, sheltered and partially shaded place, is as bright and green and healthy as it can be. Lawson's Cypress, in sheltered ground, is as healthy as any Arbor Vitæ, but wherever its head rose high enough to catch the wind, it was burned. The Sitka Cypress (*Chamæcyparis Nutkaensis*) has wintered well. This plant often behaves strangely here; sometimes one or several plants will die off unaccountably, while others growing along side of, or among them, will not betray any sign of weakness whatever. *Sequoia gigantea* and *Cryptomeria Japonica* have wintered well. All the Arbor Vitæs and Junipers are unscathed, so too are the Yews. Muslin is used to protect the Dovaston Yews, but in one instance where no protection whatever was used the plant is just as sound as those protected. A muslin protection is used around Deodars, *Podocarpus*, *Cephalotaxus*, *Cunninghamia*, and *Photinia serrulata*, and they all have wintered perfectly—all except the Deodars, a few of the points of whose branches were hurt by rubbing against the cloth. On high, dry ground, where the wind had a sweep at it, the American Holly was browned a little; a few yards off, where a larger plant had more shelter, it is unscathed. Two good sized plants of *Osmanthus illicifolius* formerly grown in tubs, wintered in a shed, and plunged outside in summer, were left out to die last fall. Not only have they survived the winter, but they never looked better than they do now, although close to them the wind scorched a Lawson's Cypress.

Scotch Broom is hurt a little. European Furze where covered with a lath shading and cedar branches is quite safe, but all the tips of the shoots that protruded beyond the protecting material, were killed. The hardy Orange tree (*Limonia trifoliata*), of which there is a small plant here, was wintered under a box filled with dry oak-leaves. It seems all right, but I think it would have been better to have omitted the leaves, as they gathered damp about it. *Phillyrea Vilmoreana* under a box covering has wintered perfectly; *Daphniphyllum glaucescens*, covered in the same way, has also kept well, but lost its upper leaves, and a large plant of *Veronica Traversii* under a box has been killed. *Berberis Japonica* under a lath shading has wintered well. *B. Darwinii* has been killed to the ground, *B. stenophylla*, where protected by a board covering has survived, and where unprotected it has died. *Olearia Haastii*, mulched with leaves and under a lath screen, has been killed to the ground. Spanish Laurel, covered over with barrels (one above the other), has wintered fairly well—that is, the wood is all living, but the plants will lose a good many of their leaves.

Evergreen Rhododendrons never wintered better, and they are well set with flower buds, and promise a good crop of flowers. And besides the large-growing Rhododendrons, such dwarf evergreen ones as *R. ferruginium*, *ovatum*, *myrtifolium* and *Wilsonianum* have wintered well, although *R. ferruginium* has suffered somewhat. *Rhododendron punctatum* lives very well with us. *Azalea amœna* is as perfect as it can be. *Andromeda Japonica* is hardy enough, but as it blooms so early is not of much use as a flowering shrub in this climate. It is not the severity of winter, but the warm sunshine, dry atmosphere and drought of summer, that make *Andromeda floribunda*, in perfection, so great a stranger in these gardens. *W. F.*

Glen Cove.

"The great secret of good landscape gardening consists in the accurate preservation of the *character* of every scene, whether the character be originally there or created in it."—*Uvedale Price*, "*Essay on the Picturesque*," *London, 1796.*

Notes from the Arnold Arboretum.

THE Arnold Arboretum is a Museum of woody plants,—a great garden in which are being introduced, studied and arranged hardy trees and shrubs from all parts of the world; and which is to be equipped with a dendrological museum, a herbarium and a library.

The establishment is not old, but its nurseries already contain a very large collection of plants; and its influence, gained through the publications of its officers, and by its distribution of new or little known plants, is already considerable; and there is hardly an important collection of plants, in the United States or in Europe, which has not been enriched by contributions from the Arnold Arboretum. Its local influence is very considerable, and the gardens and grounds in and about Boston give abundant proof of the interest awakened in arboriculture and of the practical advantage which a community can derive from a public establishment of this character.

The final planting of the type-collection of trees in the Arboretum has been considerably delayed by extensive and elaborate road-making, although the typical species of the most important genera, like the Pines, Larches, Spruces, Firs, Chestnuts, Oaks, Walnuts, Hickories, Beeches, Birches, Elms, Ashes, etc., are now permanently arranged and planted. The collection of hardy shrubs is extensive and important, containing about twelve hundred species and well marked varieties, among which there are very few garden hybrids or varieties. This collection is arranged in thirty-seven parallel beds each ten feet wide and two hundred and twenty-five feet long. The genera are arranged in the order adopted by Bentham and Hooker in their "*Genera Plantarum*," and the species are arranged geographically so far as it is practicable to do so, first the North American, then the European, and then the Asiatic plants. The collection is particularly rich in North American shrubs, many of which have been here first introduced into cultivation, and it contains many Chinese and Japanese plants, which, if from northern latitudes, generally do well here. Many genera are well represented; of *Rosa*, for example, there are about sixty species and many natural varieties, of *Berberis* thirty species or more, with some varieties, and of many others a proportionally large number of species.

The proper determination and labelling of the plants in the collection is a serious and difficult labor. Large numbers of plants are sent to the Arboretum every year from other botanical establishments or nurseries. Many of these plants are incorrectly named, and very often the same species or variety comes from half a dozen different places under as many names. All additions as soon as they bloom are verified or determined, and specimens prepared for the herbarium. After their identity has been settled, duplicates are removed; and the collection as it now stands is fairly well classified. Numerous additions, however, are still to be made.

It is proposed to publish in GARDEN AND FOREST, from week to week during the coming season, notes concerning such new, little known, or specially desirable plants in the collections of the Arboretum as may appear worthy of record.

Arnold Arboretum. *J. G. Jack.*

The Forest.

The Forest Vegetation of Northern Mexico.—III.

Prosopis juliflora, DC., Mesquit. — No tree carrying through the entire summer so much foliage has greater power to endure arid conditions than the Mesquit. (See illustration, p. 116.) Its leaflets, though numerous, are small, and are wrapped in a thick and close epidermis, which prevents rapid loss of their moisture. Hence it is to be found on the most arid tracts of sand and driest mesas of the plateau region. It is strictly a denizen of plains and valleys, never being seen amongst the growths of hills and mountains. Whilst in the rich and deep soil of the bottoms of valleys of less elevation, as those of Sonora notably, it grows to the stature of a large tree of great value, and forms the heaviest forests of such districts, in the drier situations mentioned, in order to adapt itself to the conditions of its environment, it takes the form of a shrub, widely branching beneath the soil, and rising from two to ten feet only above it. If standing amongst drifting sands, these gather in hillocks amidst such broad clumps of bushes, and heap themselves higher year by year, as the branches push upward for light and air, until the amount of wood which forms underground in thickened branches and roots is surprisingly large. A similar accumulation of wood in the roots takes place when the Mesquit stands in the more stable soil of mesas and grassy plains, and its branches are occasionally cut away for firewood. It is the gathering of these subterranean stores of fuel that has given rise to the saying that in these regions men have to dig for their wood.

Within the State of Chihuahua it is in a few valleys only, and there growing scattered, that the Mesquit deserves the name of small tree. On the deeper bottom-lands of the Laguna country, through which runs the boundary between the States of Coahuila and Durango, it attains a trunk diameter of eight or ten inches, forms dense growths, and is exclusively cut for railroad ties. In the fertile valleys and more humid climate to the south and east of the State of Zacatetas it is a common tree, and is encouraged to grow in grain fields even, where its falling pods, in shape and size resembling those of the white field Bean, pulpy, sweet and nutritious, are harvested with care as food for man and beast. On account of its fruit the Mesquit possesses great value in the more desert districts. The pods begin to mature before the midsummer rains start the grass, and the half-famished herds are attracted to the bushes by the rich morsels they offer.

Growing with the shrubby Mesquit of the plains and valleys, itself armed at the nodes of its twigs with straight, sharp thorns an inch or more in length, are several other ligneous species of low stature nearly all abundantly furnished with thorns or hooked spines, so that passage through such growths either on foot or in the saddle is difficult and vexatious. Of most frequent occurrence, perhaps, certainly one of the most hateful, is *Celtis pallida, Torr.*, which grows in broad clumps six to ten feet high, and forms, with its numerous and dense, often intricately tangled branches, impenetrable thickets. Hardly more dreadful than this or less common is *Mimosa biuncifera, Benth.*, standing three to six feet high in widely branching clumps, and laying hold of one passing it with a hundred sharp and strong hooks. *Acacia Greggii, Gray*, the Cat's-claw Mesquit, here less common than the last, and but a shrub, is a similar annoyance. So, too, *Acacia Rœmeriana, Schlecht, Microrhamnus ericoides, Gray*, one to six feet high, and *Condalia spathulata, Gray*, var., six or eight feet, have exceedingly small leaves, and bear a thorn at the end of every branchlet, while *Kœberlinia spinosa, Zucc.*, is entirely leafless, and its branches are nothing but an aggregation of large thorns. In dry and sandy soil this plant grows but a foot or two high and spreads over broad patches; in valleys of the plateau it is commonly an erect bush; and on the low plains of Sonora I have seen it reaching a stature of fifteen or twenty feet, with a trunk diameter of six to eight inches. A Cactus, *Opuntia arborescens, Engelm.*, on the plains five to ten feet high, but seen by Wislizenus in the Laguna country thirty or forty, its surface covered with myriads of needle-like spines and minute barbed points, presents, however, a climax of horrors to him who falls into its widespread arms. Amidst this chaparral the traveler acquires an instinctive dread of contact with any bush; and, if in the saddle, finds that his horse disobeys the rein that would guide him near one. *C. G. Pringle.*

Wood from the American White Pine, taken from old trees, is held by some authorities to be very durable because it is filled with resin. But this theory seems baseless. The heart-wood of a tree which I examined in Wisconsin contained 6.96 per cent. of solid resin in 100 parts, by weight, of absolutely dried wood substance. A Bavarian tree examined for comparison contained 6.66 per cent. The hot weather of America during the summer season may account for the small difference.

It is a well known fact that the wood of trees with very little resin, like the different species of *Juniperus, Sequoia, Cupressus* and *Taxodium*, is hardly surpassed in durability by that of any Pine-tree, which contains the highest amount of resin.

Comparing the White Pine with other European and a few American Conifers, I find the following results in regard to specific gravity and resinosity of the wood:

	Specific Gravity (Water 100.)	Per cent. of resin in 100 parts (by weight of dry wood.)
(1.) Long-leaved pine (*Pinus palustris*), sent to Europe as pitch-pine	78	11.1
(2.) Larch, grown in Tyrol and known as the best and most durable of all European Conifers	62	2.8
(3.) Wood of the same tree grown in the milder climate of the plains	55	4.8
(4.) Common European pine (*Pinus sylvestris*), 113 years old	48	5.
(5.) Common European pine (*Pinus sylvestris*), 235 years old	47	4.9
(6.) Red pine (*Pinus resinosa*), grown in Minnesota	41	6.
(7.) European spruce (*Picea excelsa*),	41	1.6
(8.) " fir (*Abies pectinata*),	39	1.
(9.) White pine (grown in America), 130 years old	39	7.5
(10.) White pine (grown in Bavaria), 80 years old	38	6.7

If we arrange the different trees according to the amount of resin found in their heart-wood we have the following order:

(1.) *Pinus palustris* (as representing the section with 3 needles in one sheath).
(2.) " Strobus - - - - 5 " " " "
(3.) " *sylvestris* and *resinosa* - 2 " " " "
(4.) The Larch (representing the genus *Larix*).
(5.) " Spruce " " " *Picea*).
(6.) " Fir " " " *Abies*).

There cannot be the slightest doubt that the wood of the European Larch is far more durable than that of the European Pine and of the White Pine; still the amount of resin is hardly half as great in a Larch as in a Pine; even the wood of European Spruce is superior in durability to that of the White Pine. From this fact we are bound to say that the specific gravity or the substances that give to the heart-wood its color, are more important factors in determining the durability of a coniferous wood than the amount of resin. I think that the order of resinosity, viz.: *Pinus*, *Larix*, *Picea*, *Abies*, holds good not only for the European, but also for the American representatives of these genera. *H. Mayr.*

Correspondence.

To the Editor of Garden and Forest:

I have been consulted recently by one of our largest dealers in flowers for an inflammation of the skin of the hands and face. The appearances which these parts presented indicated a *dermatitis venenata* of an eczematous type, and the patient expressed the opinion also that the inflammation had been caused by contact with some "poisonous" plant in his shop. He stated, moreover, that some of his assistants were affected in a similar way. The trouble manifested itself in all of them for the first time within a few weeks, and in his own case there had been three distinct recurrences of it within that period. His impression was that it had begun about the time that he had been handling large quantities of *Acacia pubescens* and *Primula obconica*, and he suspected one of these plants to be the cause of the inflammation.

I visited the shop, and found one of the salesmen presenting a similar disorder of the face and hands. The former was red, somewhat swollen, and irritable, and the latter exhibited a papular eruption. Another salesman stated that his face had been irritated, but it presented slight visible changes. There were several other employees in the establishment, whose skins were unaffected. I was told by some of them that it was a well-known trick in green-houses to shake a plant of *Acacia pubescens* over a green workman to excite an itching of the skin. *Primula obconica* was the only plant sold for the first time this season, and large quantities of this had been handled. I made a list of the plants which were then, or had been during the preceding month, for sale in the shop. They were:

Acacia pubescens.
Amaryllis, two varieties.
Anemone, Roman (*A. hortensis*).
Azaleas.
Bouvardia.
Calceolaria.
Calendula.
Calla.
Camellia.
Cinereria.
Coreopsis.
Cyclamen.
Cypripedum insigne.
" *Harrisii.*
Cytisus.
Daisy (*Bellis*).
Erica.
Ferns.
Foliage plants.
Freesia.
Galax (leaves).
Hyacinths.
Hydrangeas.
Jonquils.
Lilium longiflorum.
" *candidum.*
" *Harrisii.*
Lily-of-Valley.
Marguerite (*Chrysanthemum frutescens*).
Mignonette.
Narcissus.
Nasturtium.
Pansy.
Pink.
Polyanthus.
Primulas.
Roses.
Smilax.
Spiræa Japonica.
Tulips.
Violets.
Wall Flowers.

In my work on "Dermatitis Venenata," recently published, I give a list of eighty-six genera of plants, one or more species of which have been known, on good authority, to produce some degree of inflammation of the skin by contact, but in the collection above named there was but one species which finds a place in my list, viz., *Tropæolum majus*, or Garden Nasturtium. This I have known, in a few instances, to give rise to a severe inflammation of the skin of persons handling it, although it is ordinarily innocuous. It had been always handled, however, by all the persons affected in this instance with impunity. The only other plants above named, which are closely allied to species known to be "poisonous," are the Anemone, Cypripedium and Marguerite. Several of the Anemones, especially *A. nemorosa*, *A. patens*, and *A. hortensis*, possess irritative properties, and are even capable of vesicating the skin, but I have no knowledge of such action on the part of that in question. I know, on the authority of the late Professor Babcock, a distinguished botanist of Chicago, that our native *Cypripedium pubescens* is capable of producing as severe inflammation of the skin as *Rhus Toxicodendron*. The French Daisy, or Marguerite, is also, so far as I know, innocent, but its relationship to *Leucanthemum vulgare* and *Maruta cotula*, our Whiteweeds, makes it a possible object of suspicion.

There can be no doubt, in my opinion, that the cutaneous affection in these cases was of an artificial character, and that the exciting cause is to be sought among the plants recently handled in this extensive establishment. If it be some one of these lately introduced into cultivation and the public market, it is important that it should be discovered. It was suggested as a possible explanation by the proprietor, my patient, that some of the fertilizers used about low-growing plants, as Violets, etc., might have accumulated upon the leaves, and thus be transferred to the hands in making up bunches for sale, or that some of the mildews upon the foliage might, perhaps, be irritating when handled. *Ustilago hypodites*, parasitic upon *Arundo donax*, is a frequent cause of cutaneous inflammation among the workers in this Reed in France, but I am acquainted with no other fungus with such properties.

As it seems probable that the offender in this case is some new plant, I wrote to Professor Goodale asking him if he had known the suspected Acacia or Primula to cause such irritation. He replies:

"Our gardeners say that they have not experienced any trouble from *A. pubescens* or *P. obconica*, but that there is a plant, as yet undetected, which has lately given them a good deal of irritation."

It is with the hope that some cultivator of, or dealer in, flowers may be able to throw light upon the matter, that I send this communication to Garden and Forest.

Harvard Medical School, Boston. *James C. White.*

To the Editor of Garden and Forest:

Sir.—You will, perhaps, be interested to hear that by far the most beautiful of the southern California shade trees is the Pepper tree. Its graceful form, delicate foliage, feathery sprays of white blossoms, and long pendant clusters of red berries, all present in profusion at every season of the year, make a most effective feature in nearly all the streets and parks of Los Angeles. Its growth is phenomenally rapid and attains great height and breadth.

The shade, though not dense, is exceedingly pleasant, not only by reason of the lovely arabesque of tracery reflected upon the hot yellow soil, but also by the pungently resinous odor which it exhales, and which is at once refreshing, stimulating and soothing to the lungs. Nature seems to have provided in great abundance this "healing balm," as the antidote for the irritating effect of the finely powdered, almost impalpable adobe dust that infests the air of California for the greater

portion of the year. The Pepper tree makes no litter of cast-off leaves, entertains no insects on trunk, branch or leaf, and its light foliage, being in constant motion, shakes off the least particle of dust; while all its neighbors are thickly coated with soil, its shining, sweeetly scented boughs are always glossy green.

It grows readily from the seed, and shapes itself perfectly without the aid of the pruning hook. *R. A.*

[The so-called Pepper tree (*Schinus Molle*) is a beautiful small tree, a native of Chili and some parts of Brazil, and is related to our Sumachs. It is now very generally planted in Australia, southern Europe and other warm, dry regions of the world.—ED.]

To the Editor of GARDEN AND FOREST:

Sir.—I learn from your journal that in the "Handbuch der Coniferen Benennung," *Wellingtonia* is retained as a genus for *Sequoia*. I once asked Professor Gray if, when he was in England, he called *Sequoia Wellingtonia?* "No," he replied, very earnestly. "It is too bad that a name prompted by narrow national feeling should be allowed to supersede an older botanical name." Is it too late to accomplish anything in this matter by remonstrance?

Cambridge, Mass. *Katherine Parsons.*

[European botanists, of course, speak of our Big Tree as *Sequoia*, but the name *Wellingtonia* is now so universally adopted and is clung to with such tenacity, especially in Great Britain, by all nurserymen and other cultivators, that nothing short of a miracle will ever cause it to be discarded in favor of *Sequoia*.—ED.]

To the Editor of GARDEN AND FOREST:

Sir.—Your pleasant note concerning the Dog-wood with rose-colored flowers which Mark Catesby had growing in his Virginia garden a century and a half ago, reminds me of a tree in "Bear Camp," which has red flowers. Let me add that I have found in what is known as Big Gum Bottom, a new station for *Rhododendron Vaseyi*. Hundreds of thousands of plants are scattered over an area of at least a square mile. They are of all sizes and are loaded with flower buds. *F. E. Boynton.*

Macon Co., N. C., April 10th.

Recent Publications.

Versailles et les Trianons, par Paul Bosq. *Illustré.* Paris, Henri Laurens. (*Bibliothèque d'Histoire et d'Art.*)

French writers have a peculiar gift for picturesque and vivid description, as well as for recounting the facts of history with a touch so light that the record reads like a romance. Versailles and the life which there was led during the most brilliant epoch in the annals of France, offered a congenial theme to a pen of the truly Gallic sort. Monsieur Bosq has proved himself the owner of such a pen, and, moreover, has gracefully interwoven with his own words copious extracts from famous writers of earlier generations. The result is a book small in size and sparkling in tone, which, nevertheless, contains a large amount of information, and gives us a better idea of the former aspect of Versailles and of the scenes which have passed there than we could obtain by much laborious searching in a multitude of more serious-seeming volumes.

The readers of this Journal, it may be supposed, will take an especial interest in the descriptions of the great park of Versailles—the most famous park of modern times—and of the smaller ones which surround the Great and the Little Trianon. These descriptions are, of course, untechnical, but they are clear and interesting, and take us briefly through the history of the great works of which they speak. One fact which will surprise many readers is that the great park in front of the palace of Versailles was not the creation of Le Nôtre, with whose name it is so inseparably connected, but was laid out by Lemercier and planted by Boyceau during the reign of Louis XIII., and merely enlarged and remodeled by Le Nôtre when Louis XIV. made Versailles his principal residence. The first task which this monarch undertook was the remodeling of the park, and from 1664 to 1669 he occupied himself with little else. It is impossible here to repeat the account which M. Bosq gives of the work accomplished in these years; but one or two facts may be cited to give an idea of its magnitude. Nothing was left of the original design of the park except a few of the principal lines. Its borders had been extended until an English visitor could speak of it as a "province in itself." Ninety-five sculptors were employed to people it with statues. It had fourteen hundred jets of water distributed among many fountains of immense size and lavish sculptured decoration. Trees of the largest growth had been brought in incredible numbers from various parts of Europe. Thousands of Orange trees stood in pots of costliest porcelain. The great Canal was 5,134 feet in length and 380 in breadth, and ended in a piece of water 608 feet square. Groves, trellises, "green parlors," labyrinths, and wide, formally outlined stretches of turf succeeded one another in bewildering variety and on the most colossal scale. And when the great fountains played "the whole world came to gaze." Nor when the park was finished was the work upon it done, for it was continually altered, part by part, until three almost entire reconstructions could be counted during the lifetime of Louis XIV. Under Louis XV. new and equally great changes were made, but during his later years this king abandoned the great palace and park for the Trianon; under Louis XVI. it fell into deplorable neglect, and the Revolution ruined it. Napoleon did much to restore the park, however, and between the years 1869 and 1881 it was replanted, part by part.

The palace called the Great Trianon was built, to please Madame de Montespan, upon the site of a village of that name which was razed to make room for it. Louis XIV. pulled it down and reconstructed it, and in his later years gave much attention to its magnificent gardens and took especial pleasure in nocturnal promenades in gondolas on its canal. Louis XV., taken with a sudden passing fancy for gardening, made it the scene of many agricultural and horticultural experiments; and his gardener, Claude Richard, did real service to the world by first growing in the gardens of the Great Trianon many plants which are now common all over Europe. It was he, says M. Bosq, who first cultivated what the French call "*plantes de la terre de bruyère*" and the English "American plants"—Azaleas, Rhododendrons, Andromedas, and other peat-loving plants. In 1759 Louis XV. added to his horticultural establishment a botanical garden, and placed it under the charge of Bernard de Jussieu, who pleased his master by asking nothing of him, "not even re-imbursement for his outlays."

With the *Petit Trianon* the name of Marie Antoinette is inseparably connected; and it is a name which will be long remembered by historians of the landscape gardener's art, for in her time the first "English garden" in France was laid out in this lovely spot. It is still one of the finest examples of this school of gardening in Europe, and—a fact which M. Bosq does not note—it is of especial interest to American visitors. The elder Michaux, one of the earliest systematic explorers of the Flora of America, traveled under commission from Louis XVI., and the plants he sent home as valuable novelties were cultivated in the "English garden" of the queen. Her gay existence in this garden was soon cut short in blood and fire by the Revolution, but many fine specimens of American trees still bear witness to Michaux's energy and to the faot that the most pleasure-loving monarchs may produce lasting beneficial results while striving merely to gratify their own passing tastes and fancies.

Periodical Literature.

THE February number of *Petermann's Mittheilungen* contains an interesting article by Dr. von Lendenfeld upon "The Influence of Deforesting upon the Rainfall of Australia." The author confesses that his investigations have not been carried on long enough or over a wide enough area to warrant him in claiming scientific value for his conclusions. Yet he seems to think himself justified in believing that opposite effects follow in Europe and in Australia upon the cutting off of forests. In Europe the struggle for life between different kinds of vegetation means a struggle for light; in Australia it means a struggle for moisture. The trees of Australia, having adapted themselves to the exigencies of a dry climate, send forth their roots very widely and deeply, and so wholly absorb all the moisture which exists that no grass will grow beneath them. Nor do they, like European trees, give back by evaporation a large part of what they take—as is conspicuously shown in the case of the Eucalyptus, which perpetually turns the edges of its leaves towards the sun and closes its pores during the hottest part of the day. If, says Dr. von Lendenfeld, the forests of central Europe were all destroyed, the annual rainfall would be diminished by one-quarter and vegetation in general would suffer proportionately. From this opinion many scientific observers will dissent. But whether Dr. von Lendenfeld is right or wrong in holding it, does not affect his assertion with regard to Australia—the assertion that when forests are cut there, the immediate effect is a rapid increase in the minor forms of vegetation. The roots of the trees, re-

maining in the soil, form little canals through which water penetrates the hard ground, and grass springs up and flourishes so that certain tracts in New South Wales can now support ten times as many sheep as before their trees were cut.

No less than 341 species, varieties and hybrids are included in the list of Cypripediums published in a recent issue of *Le Moniteur d'Horticulture*, and now issued as a separate publication. The parentage of hybrids is given and species with annual leaves are distinguished.

Recent Plant Portraits.

Gardener's Chronicle, March 24th.

UTRICULARIA LONGIFOLIA (showing a case of proliferation).

HOLOTHRIX LINDLEANA.

Hooker's *Icones Plantarum*.

SATYRIUM PRINCEPS, *t.* 1729; a handsome species from Port Elizabeth, with showy carmine flowers.

TABEBUIA LONGIPES, *t.* 1738.

ADINOTINUS SINENSIS, *t.* 1740; the representative of a new genus of the Honeysuckle Family, with digitate foliage of a Horse-Chestnut and the flowers of a Guelder Rose. It is from central China and should be hardy and an interesting addition to garden shrubs.

DECUMARIA SINENSIS, *t.* 1741; is also a native of central China and should make a handsome hardy garden creeper, with its obovate leaves and heads of fragrant white flowers. Much interest is attached to the plant as a second representative of a genus known heretofore only in our Southern States.

HAMAMELIS MOLLIS, *t.* 1742; a new Witch-hazel from central China.

CHRYSOSPLENIUM MACROPHYLLUM, *t.* 1744.

ABUTILON SINENSE, *t.* 1750; a native of south-west China; a shrub or low tree, with beautiful yellow flowers.

Botanical Magazine, April.

NYMPHÆA KEWENSIS, *t.* 6988; a very handsome hybrid raised in the Royal Garden in 1885 by impregnating the white flowered *N. Lotus* with the pollen of *N. Devoniensis*, itself a hybrid. The flowers are described as nine inches in diameter and as remaining open for several hours after noon.

BRODIÆA HOWELLII, *t.* 6989; a pretty white flowered species discovered a few years ago in Washington Territory by the collector whose name it bears.

MASDEVALLIA GIBBEROSA, *t.* 6990; a curious little species from New Grenada; of no horticultural value.

CANTLEYA LUTEA, *t.* 6991.

ABIES NORDMANNIANA, *t.* 6992; "*A. Nordmanniana* belongs to a group of five closely allied European and west Asiatic Silver Firs, the limits of which are not yet well defined. Of these the type is *A. pectinata*, the common Silver Fir, which extends from the centre of France eastward to middle Russia, and reappears in Macedonia and Greece, extending to Anatolia in the extreme east of Asia Minor, and according to Ledabour, also in the Caucasian districts of Imperetia and Ossatia. *A. Apollinis*, with its varieties *Panachaica* and *Reginæ Amaliæ*, is confined to the mountains of Greece and Macedonia. *A. Cephalonica* is more restricted still, being found only in the small island whose name it bears. Both of these last are considered as forms of *A. pectinata* by Heldreich, the most competent authority, by far, on Greek botany. *A. Cilicica* is the most Southern species, being confined to the Taurus and Anti-Taurus Mountains in ancient Cilicica, and to the Lebanon; it is the only Levantine species, and differs remarkably from the above, and from the following, in the retrorsely hooked angles of the scales. Lastly, there is *A. Nordmanniana*, to which the geographical limits assigned by Boissier are all the mountains towards the east and south-east shores of the Black Sea, including the south-western spurs of the Caucasus. . . . The nearest ally of all these species is the Afghan and Himalayan *A. Webbiana*, which approaches *A. Nordmanniana* more nearly than any of the more western species.

"*A. Nordmanniana* is a noble forest tree, attaining 150 feet in height, with a trunk six feet in diameter; it inhabits elevations of 2,000 feet and upwards, growing with species of *Corylus*, *Carpinius*, *Cornus*, *Philadelphus* and other European trees."

J. D. Hooker.

Public Works.

Central Park, New York.—A section of the park along its Fifth Avenue boundary, and between 102d and 110th streets, originally a part of Mount St. Vincent Convent grounds, has remained undeveloped because the city did not get possession of it at the outset. The whole district was set apart for office and nursery purposes, and the conservatory attached to the convent was allowed to stand until the buildings burned down. For twenty years the ground has been devoted to the experimental growth of plants, and a number of comparatively rare and tender trees and shrubs have been collected here in a somewhat sheltered position. The Park Board has determined to begin the permanent improvement of this area, on the recommendation of Mr. Vaux, the Landscape Architect of the Department, and Superintendent Parsons. The collection of plants that have already succeeded will be extended, and other choice trees and shrubs which will thrive in this protected amphitheatre will be added. It is fortunate for the city, and for all who appreciate thoroughly good landscape work, that Mr. Vaux is again in a position of authority in all matters which touch the design of the park.

Retail Flower Markets.

NEW YORK, *April 27th.*

The trade in flowers is very good, especially with Broadway florists. The supply is short and the average quality poor. Paul Neyron continues to hold the lead among hybrid Roses. Baroness Rothschild follows next, and then comes American Beauty. The finest of these Roses bring 75 cts. each, and the second grade cost 40 and 50 cts. Puritans are in good demand, but are scarce. They are steady at 50 cts. each. La France, Catherine Mermet and The Bride sell for $2 a dozen. Catherine Mermets are poor in color and very ragged. There are not enough first-rate Jacqueminots to meet the request. They cost $2.50 and $3 a dozen. Tulips of first quality, Daffodils and Lilies-of-the-Valley bring $1 a dozen. Lilacs are $1 a bunch. The white variety is strong and full. Scarlet Carnations are abundant and well grown. They cost from 35 to 50 cts. a dozen. Grace Wilder and Buttercups are inferior, and may be bought for 25 cts. a dozen. Both *Lilium longiflorum* and Callas bring $3 a dozen. Violets are small and unsatisfactory at prices unchanged. Smilax is very scarce, and in demand at 50 cts. a yard. *Asparagus tenuissimus* costs 50 and 75 cts. a yard. The filling of window-boxes and jardinieres for court-yards makes busy days for gardeners. Pansies, Forget-me-nots, Daisies and Lobelias are favorite flowers for window-boxes. Vines are more used in their arrangement this spring.

PHILADELPHIA, *April 27th.*

Unusually cold weather has kept up a steady demand for all kinds of flowers of first quality, and it has also held flowers in good condition later than in ordinary seasons. Some notable weddings and dinners have helped to hold up prices by the profusion with which the finest flowers were used for decoration. These facts account for the firmness of the market, which has ranged during the week at the prices last quoted. Trailing Arbutus is very plentiful, and sells at 10 cts. to 25 cts. a bunch. This diversity of prices is not due to a difference of quality in the stock, but to the different locations where sales are made. On Tuesday an amateur in Rose culture bought all the fine Roses that were on sale and added them to his own collection for a private exhibition. His own Roses are grown in a house more than 100 feet long, specially constructed, and with every recent appliance for the most successful cultivation of Roses. Another market incident of the week was a single order for more than 1,000 heads of the beautiful pale blue Forget-me-not. This favorite is now at its best, the flowers being cut from plants that have been kept in cold-frames all winter. With warmer weather and brighter sunshine it will become seedy.

BOSTON, *April 27th.*

The supply of Roses has materially decreased during the past week, and there is now a fair demand for all good stock that is offered. One of the most popular of the new Roses, Ulrich Brüner, is seen occasionally, and it sells well. In color it is remarkably bright. Jacqueminots and Hybrids are quite scarce, good blooms of the latter selling for $6 to $8 per dozen. The best Jacqueminots bring $4 per dozen. Carnations are rather small, the usual result of warmer and brighter weather. They cost about 50 cts. a dozen. Violets are scarce at $1.50 to $2 a hundred, and Pansies plenty at $1 a hundred. Among the prettiest flowers seen here at this time of the year are the Primroses. These come in all shades of lemon, chrome yellow, bronze and brown. They are beautifully marked and edged, and some of the lighter colored ones are deliciously fragrant. A small bunch costs 50 cts. There is still an abundance of Lilies-of-the-Valley and Tulips, with a fair stock of Daffodils and Poet's Narcissus. One dollar a dozen is the standard price for these until they bloom out-of-doors. Lilies of all varieties are also abundant at moderate prices. Among the novelties are some white Asters which an out-of-town grower has succeeded in forcing, and a few single Sunflowers. Really good Smilax cannot be obtained at any price. Asparagus, which would make such an admirable substitute for Smilax, seems to win favor but slowly, and the only green used in large quantities is Ferns, the hardy native kinds being used for edges and background of all baskets and designs, and Maiden-hair Ferns for general finish and effect.